



U.S. Fish & Wildlife Service – Region 2 Southwest Region Fisheries Program

Restoring Native Fishes and Their Habitats Arizona Fishery Resources Office

Issue:

Since the settling of the West by pioneers in the early 1880s, native fish populations have disappeared, diminished, or become isolated. In Arizona, 95% of the rivers have been altered by dams, water diversion projects, urban encroachment, cattle grazing, and excessive ground water pumping, or converted to agricultural lands. These activities have resulted in the loss of more than 90% of riparian habitat. In addition, at least 100 species of non-native fish have been either intentionally or inadvertently introduced into Arizona's waters. As a result of habitat fragmentation and destruction and introductions of non-native fish, 1 of the 35 fish species native to Arizona is extinct and approximately 75% are federally listed as threatened or endangered, proposed for listing, or a candidate for listing. During the past year, the Arizona Fishery Resources Office (AZFRO) committed resources to 5 of the 19 proposed, threatened, or endangered fish in Arizona, while the remaining 14 received little or none of AZFRO's resources. Only a few of the additional 15 non-listed native fish received AZFRO's resources toward their conservation. While 84 watersheds exist in Arizona, we were only able to commit resources in 9 of them.

Accomplishments:

In FY 2003, AZFRO monitored the population status of threatened Apache trout, and endangered Gila topminnow, humpback chub, razorback sucker, and bonytail. AZFRO worked with partners to improve habitat conditions for Apache trout in the White Mountains of eastern Arizona by constructing barriers, and for Gila topminnow by removing invasive salt cedar on the San Carlos Apache Reservation. AZFRO managed newly created backwaters along the lower Colorado River to assist with the recovery of razorback sucker and bonytail and prioritized Arizona's watersheds to guide our future work within the state.

Future Outlook:

Recovery plans exist for threatened and endangered species, all of which identify recovery actions for a particular species. However, because resources are limited, many of these recovery actions do not get accomplished. While working toward recovering existing listed species, non-listed native species are declining. The same holds true from a habitat perspective. While backwaters along the lower Colorado River are being renovated, riparian corridors of headwater streams are being overgrazed or non-native predatory fishes are encroaching on native fish populations. Thought needs to be given as to whether "an ounce of prevention is worth a pound of cure." For native fish and their habitats to be recovered and conserved, resources need to be dedicated to determining the current status, distribution, and threats of all native fish and their habitats; identifying donor and recipient streams for native fish replication; renovating streams containing either non-native fish or poor habitat conditions; restoring riparian corridors and watersheds; constructing barriers to protect resident native fish populations; developing propagation techniques for all native fish; developing conservation plans; and implementing recovery actions.

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Coolidge Dam impounding the Gila River, once home to razorback sucker, Colorado pikeminnow, loach minnow, and spikedace, all of which have been extirpated.

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Artificial habitat constructed for the endangered Gila topminnow.

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Biologists survey streams to determine current status and distribution of Arizona's native fish populations.

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